A Work Project, presented as part of the requirements for the Award of a Master Degree in Management from the NOVA- School of Business and Economics.

Investigation on the TAVAAS methodology as a country attractiveness framework.

The weighting of the Sub-factors.

A Project carried out on the Master on Management Program, under the supervision of:
Paulo Faroleiro

João Pedro Cerqueira - 22801

Abstract

The purpose of this Master Thesis is to further analyse one of the most complete country attractiveness methodologies available and by the name of TAVAAS. This methodology is composed by already six investigated and validated factors but the problem lies on the sub-factor weighting as all sub-factors were equally weighted. As a result, based on primary and secondary research a hypothesis was formulated to address this problem and therefore validated with a study already done by a private national outsourcing agency (APDC). The results from this study were revealing of some aspects that led foreign companies to select a given country, which in this case was Portugal, and therefore some adjustments to the original model were performed as a way to translate the motivations behind the outsourcing moves of different companies.

To conclude, a final model was elaborated, in which now sub-factors bear different weights, being this decision a combination of corporate country attractiveness assessment and secondary research on the relevance of the different matters in the sub-factors.

Literature Review

Past literature on Location Assessment on outsourcing, offshoring and nearshoring matters have not been extensive and before the TAVAAS, very few had had a quantitative side to it. Many have wondered whether a country analysis is better suited than a city analysis and others like Charles Green even state that Country Risk Assessment is not sufficient anymore: “The classic criteria for assessing geographic risk in an outsourcing location have been geopolitical stability, the general business environment, the quality of human capital, the legislative and regulatory environment, and the broader IT landscape. That's a good starting point (…) But it's too simple. The location analysis needs to feed into an analysis of specific vendor risk to be truly useful” (Green, 2016).

Others have tried to elaborate simpler models like AT & Kearney’s Global Services Location Index, which measures countries from 0 to 4 in three criteria and respective weights: Business Environment (40%), People Skills (30%) and Financial Attractiveness (30%). “We tailor these assessments to include historic analysis, risk and cost sensitivities, specific job functions, and a host of other relevant

measures. As part of the assessment, we develop scenarios to demonstrate how locations compare under different cost, skill, and risk situations." (AT & Kearny, 2016). This methodology is a mixture of primary and secondary research, being the latter mostly based on indexes provided by international authorities like the World Bank or OECD. Despite being a good overlook of the global outsourcing scenario, this models lack in terms of categories thus not representing the full reality of offshoring/nearshoring.

Additionally, one can analyse the Oval model proposed by Carmel, which came up from observing the range of nations exporting software, and notice that the eight factors which are vital to the success of a country in that industry (Carmel & Tjia, 2005). The 7 factors (The industry, Wages and Costs, Human Capital, Quality of life, Technological Infrastructure, Capital and Government Vision and Policy) are all related by the eighth factor "Linkages" which tries to explain the way all these factors influence each other at a national level. This's a good qualitative methodology since it tries to find linkages that may explain the triggers of development in a given outsourcing area and evaluates past results to explain success or failure.

Moreover, there's a proposed model by Cushman & Wakefield which divides the location assessment model into three categories (Conditions – 30%, Risk – 20% and Costs – 50%) and its respective sub-categories and sub-sub-categories (Cushman & Wakefield, 2016). This is a complex and intricate methodology, which also used international indicators to evaluate and compare countries but despite having this complex approach picks on some points which are not parallel to the TAVAAS, as this methodology assumes cost-driven processes, need for unskilled and cheap labour workforce and political risks are of reduced importance. This methodology drains data from Tholons Database, which has on its own the Global Services Tholons Reports which scores outsourcing destinations but on a city-level basis. Scoring destinations on six categories (scale and quality of workforce, business catalyst, cost, infrastructure, risk profile and quality of life) and respective sub-categories, each with its weight, these reports withdraw information from mainly primary research such as corporate interviews or surveys. This methodology enables to view a different angle of the outsourcing panorama as it gives the chance to further look into a country and decide which city to choose from.

Lastly, the most related methodology to the TAVAAS and the one which came before it, is Farrell's six-factor methodology which categorizes countries in six variables: Costs, Environment, Quality of infrastructure, Availability of Skills, Market Potential and Risk Profile. The richness of this methodology is its implementation process which is characterized by following steps: Location and identification and listing; decision of assessment criteria (the six-factor model); Qualitative and Quantitative data research and criteria ranking based on relative importance for the company, ranking of potential locations, measurement of location sustainability (Lavadera L, 2016). Later, by eliminating a cultural compatibility factor, the TAVAAS methodology could then be applied to assess the attractiveness of western countries to receive outsourcing services. (Oshri & Ravishankar, On the attractiveness of the UK for outsourcing services, 2014).

Introduction

Nearly, for the last forty years outsourcing has evolved to become one of the most critical business strategies available in the management world. A great deal of outsourcing began with more developed countries spinning off parts of their manufacturing process to countries which offered lower costs. Indeed, manufacturing was the great engine that powered (and still powers) the outsourcing industry, but with rapid development of information technology in the last decades of the twentieth century and the beginning of the new millennium outsourcing IT-related activities such as call-centres, data warehouse and IT consulting, became a vital strategy for companies around the globe. In spite of the fact that ITO (Information Technology Outsourcing) growth has been rampant in the last decades – it grew from a 10B in 1989 to 344B US Dollars in 2013 – another sector of the outsourcing world, the Business Process Outsourcing (BPO), has developed and is set to outpace ITO levels by 2018, with managers stating that they clearly undermanage their back-offices and do not wish to invest in innovating them. (Oshri, Kotlarsky, & Willcocks, 2015)

However, in the recent years a new concept called "Nearshoring" has arisen and is defined by offshoring activities to companies in nearby countries so that they can be more easily monitored. According to (Kvedaravičienė, Goda) "The customer expects to benefit from one or more of the

following constructs of proximity: geographic, temporal, cultural, linguistic, economic, political or historical linkages.".

The Problem

With this information in consideration, the aim of this master thesis is to continue the investigation done on previous thesis regarding the TAVAAS framework. This framework developed by Ilan Oshri assesses the potential that a Talent-based, Value-adding and Advanced Sourcing country has in order to become a successful and attractive outsourcing destination. Contrary to the typical decision on the destination outsourcing model, which takes costs heavily into account, clients using outsourcing or nearshoring in this context "(…) seek high-quality service based on an advanced platform of sourcing capabilities are likely to consider costs as less important factor than the availability and quality of skills." (Oshri, Kotlarsky, & Willcocks, 2015).

The main focus will be on the problem of the sub-factor weights, which on previous models were treated with a simple average mean, which didn't translate the full business truth of country attractiveness to the model, given that some sub-factors are deeply more important than others. With this into consideration and the help of two corporate interviews and secondary information, a model on the sub-factor weighting was created and then put into test with a validation study formerly done by APDC/ Portugal Outsourcing on "Which factors make Portugal a winning Strategy". To overcome this problem, it is suggested to start with the previous model, defined by equally weighted sub-factors, and from then, based on secondary research, identify the weighting of the sub-factors. Finally, to validate this hypothesized model it is put forward a survey to 40 companies by APDC (Associação Portuguesa para Desenvolvimento das Comunicações) /Portugal Outsourcing.

The Hypothesis

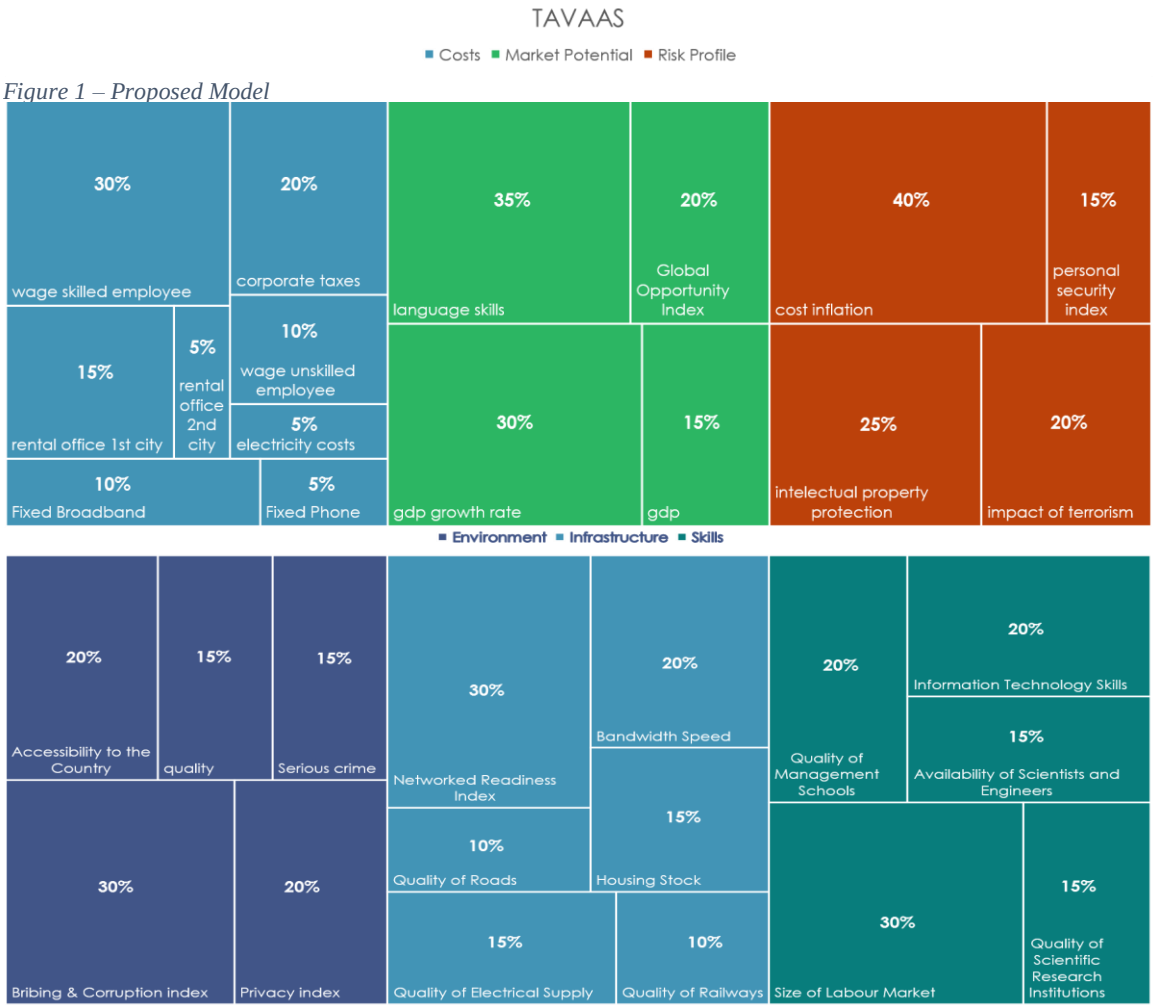

Figure 1 – Proposed Model

Market potential

It is moderately important to analyse the GDP of a country, because it is one of the signs of whether the country is positioned in the category of developed, developing or underdeveloped nations and in its turn this could signal some red flags about the potential risk one's incurring in taking a venture to that site. More importantly, it is key to assess its growth. A country may have a high GDP but that doesn't mean exactly there is economic growth. In fact, the growth rate of the GDP is good indicator

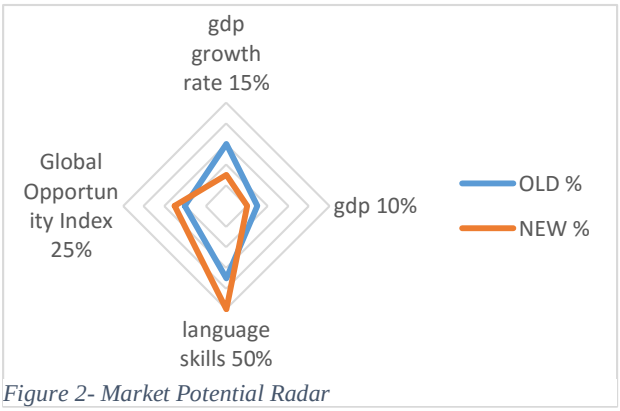

Figure 2- Market Potential Radar

of how well an economy is doing and actually growing and this is utterly important because most of the times a better economy tends to actively trade more and develop more regulated structures, which in its turn is great lever to the inflow of offshored services and processes. It is proposed that in outsourcing destination countries, the existence of active trade or professional associations that enforce ethics and codes of conduct is positively related to the amount of BP and IT outsourcing inflow in that country. (Kshetri, 2007)

Following this train of thought and the proposition from Nir Kshetri, it's appropriate to evaluate how open and attractive is a country to FDI. As the former corollary suggests, countries where active trade exists attract a steadier inflow of offshoring and this same proposition is valid for Foreign Direct Investment. This may be explained by the idea that countries more open to FDI have already developed more skills and mechanisms to receive investment from abroad, putting them higher in the learning curve, which make them more attractive. The Global Opportunity Index allows the possibility to assess a country's readiness to receive FDI and therefore, analyse whether a country is at the receiving end of investors' long term strategy and consequent desire for profits. As the Milken Institute states that there is a direct correlation between that this index can explain more than 57 percent of the variation in FDI per capita across advanced, emerging, and frontier nations. Based on this estimated relationship, each one-unit increase in the index is associated with a 42 percent increase in FDI per capita. (The Milken Institute, 2015)

On other level, Language Skills is part of a cultural fit which enables and better communication and flow of work between the companies. This sub-factor is vital to ensure that the outsourced company and the outsourcer are on the same page when it comes to dealing with customer assistance, consultancy services and other business processes like human resource management. Language is indeed a micro-level assessment which translates the broader category of Culture and the latter is fundamental to ensure a stable business partnership. CIO website states that cultural differences, impact interactions, communication, interpretation, understanding, productivity, comfort and commitment. (Kaushik, 2009). In the book "Offshoring Secrets: Building and Running a Successful

India Operation", Utkarsh Rai described the differences of management culture between eastern companies and western ones and highlighted specific aspects of offshored projects to Indian companies where styles of communication enlarged the gap between outsourcer and outsourced (Rai, 2007). For all of the above reasons this considered as the most important factor when assessing the factor Market Potential.

Risk Profile

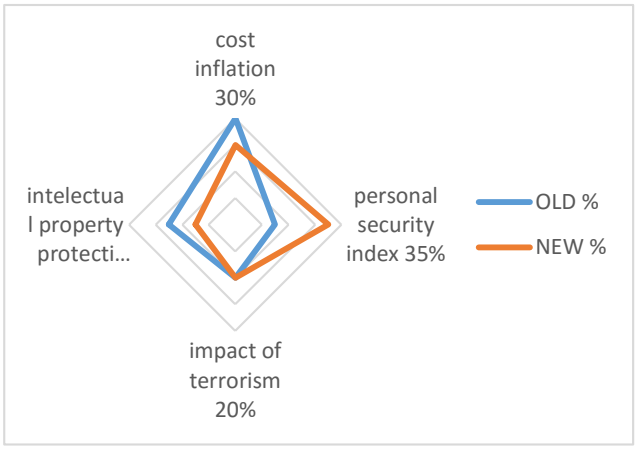

Figure 3- Risk Profile Radar

Cost inflation is a critical sub-factor to the contribution in the Risk Profile factor. This sub-factor is estimated to contribute by 40% to the factor itself due to implications an increase in the inflation rate have on long-term projects taken offshore. Stability in the cost inflation index is key for multinationals to assess whether a country offers long-term prospects for nearshore because this factor may interfere with the cost planning of a project, making it required to invest more funds than otherwise planned. Taking into consideration the example of India, this country used to be a top destination for ITO but for the last years it entered at stage of double-digit inflation rate making it no longer a prime destination for low-cost ITO. (it-outsourcing.vsisoft, 2016). Despite not being as low-cost as before India is still the prime location for ITO for 80% of European and US companies. (Outsource2india, 2016). However, India's facing fierce competition from up and coming countries such as Philippines, Mexico or Morocco, who have close ties to English, Spanish and French-speaking countries, respectively.

Additionally, another main concern when choosing a location to nearshore or offshore, is the risk of intellectual property violation. Not only an issue in manufacturing, where this risk ever-so-present, but also in BPO and ITO this risk plays a decisive role because when outsourcing business processes or information technology, companies are facing the risk that some of their competitive advantages like patents, copyrights or other trade secrets get exposed. Since BPO and ITO are deemed to the sharing of a wide array of knowledge and that the intellectual property is regulated on a country-basis level, it is of utter importance to assess which country one's outsourcing to, in order to assess the level of risk a company might be exposed to. (Ghelfi, 2016). It is due to the possible loss of competitive advantages and other trade-secrets that this sub-factor is estimated to account by 30% of the total risk-factor.

Moreover, the model still analyses two other sub-factors which contribute to the risk factor. The personal security index and the impact of terrorism account for the rest of the 25% of the risk factor. The former is accounts for a 15% impact because violent and aggressive crimes tend to follow the same pattern of weak regulation and since westernized countries, which are the ones more important to this model, tend to have better regulation and less poverty, making the crime rates go down. Still, while not a major sub-factor, it's important to note that personal security may have ties with corporate security because by exposing workers of outsourcing companies to insecure environments, the company is also exposing itself to this same insecurity.

Lastly, the impact of terrorism accounts for 10% of the risk profile factor. Although it may seem like a serious preoccupation, that it is worldwide, western countries are more protected to organized terrorism due to their tighter security policies and surveillance methods. This sub-factor is minor one because when outsourcing, a company only outsources part of its operations and even if data is lost on the attack, nowadays there are backup servers that record the information as it produced, creating an attack-proof system. Evidence of this fact are the bombings and the constant threat of terrorist attack on the Philippines that have not deterred western companies to outsource to that country. (Lopez, 2016)

Costs

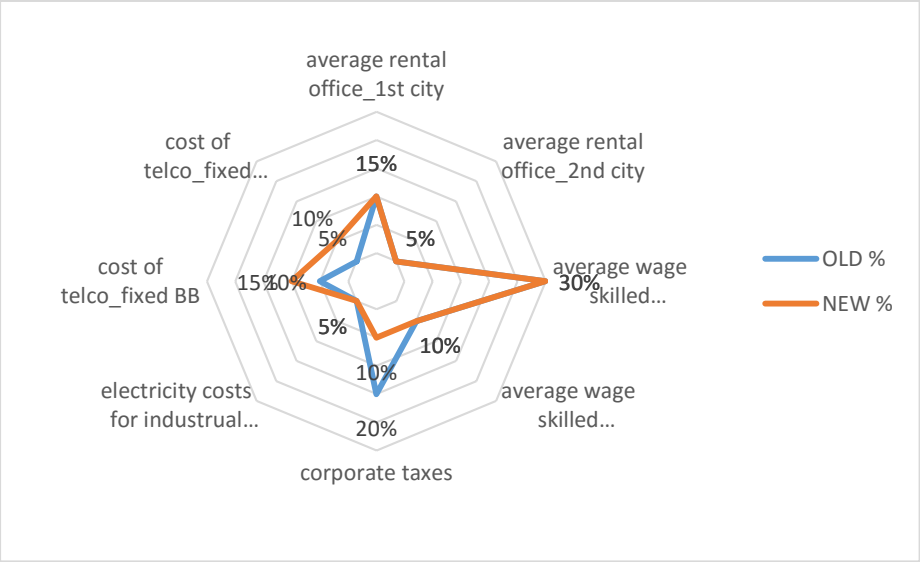

Figure 4 - Costs Radar

One of the main sub-factors on this part of the model has to be attributed to the corporate tax, which accounts for 20% of the total of the factor. The corporate tax is one of the main sources of income for national states and this added to the tax policy, towards offshoring or nearshoring, can dramatically shape the attractiveness of a country. Moreover, it is hypothesized that the tax level in the destination location is negatively related to the amount of business process outsourcing (Graf & Mudambi, 2005). Accordingly, Cushman & Wakefield in their model of country-decision analyse corporate tax not as a cost but as part of business environment but still, this sub-factor in this model has an impressive weight of 70%, which corroborates the importance of this sub-factor (Cushman & Wakefield, 2016).

The next sub-factors all show how thorough the model is because they assess the country on a two-level basis. The first couple of factors, average rental office in the first city and in the second city of a country, each respectively with 15% and 5%, evaluate how costly for a company would it be to a to have physical facilities at the country's best cities. Accordingly, these sub-factors cannot be overlooked due to the importance of the cost of doing business has in a company's strategy. This cost can very rapidly eat into profits and has to be well managed so that contracts for rents, for example, are well established and don't give room for fluctuation in this expense. Again, with the illustration of

Cushman & Wakefield for the BPO sector, the cost for buildings and in this case it can be adapted to rental as well, weighs 20% in their category of Costs (Cushman & Wakefield, 2016). Also, according to the same source, in its forecast for rental growth across Europe, it is expected that cost for offices will continue to rise in more slowly in mature locations, with the exception of London's City 12% rise, and will more likely see a burst in rental prices in South, Central and Eastern Europe, with cities like Prague and Budapest topping that growth. (Cushman & Wakefield, 2016)

The decision to attribute less weight to the second city is because usually companies go for the country's capital, specially in European countries, due to the high concentration of services and infrastructure. Therefore, the decision to go a secondary city will weight less than to go for a primary one.

The next couple of sub-factors contemplate the cost of doing business related to labour. Not so much importance is given to low-end workers – 10% - because in the BPO and ITO lines of business there is less room for such workers, eventhough there is an increasing trend in call centers and support fuctions being deployed in the Eastern European countries, for example. But the main reason why this model weighs high-end skilled workers the triple – 30% - is due to the inherent talent-base assessment the model has. Mainly in the IT area, where IT consulting and infrastructure rack up 21% of the total ITO and BPO expenditure[1], highly skilled employees are needed with a valuable background and expertise on the matter. However, the coutry which provides this broad talent pool at lower rate will most likely gain the upper hand to attract foreign investment, as labour costs will for sure lay heavy on the company's balance sheet. Moreover, a country with a significantly lower costs of labour is typically more prone to receive FDI inflows and it is hypothezied that the compensation level of labour in the destination location is positively related to the amount of business process outsourcing (Graf & Mudambi, 2005). Finally, the last set of sub-factors assess the cost of telecommunications with a deeper insight on the cost of Fixed Broadband and Fixed Phone. These two sub-factors weigh moderately on the location decision process as they may vary broadly from country to country.

[1] (Oshri, Kotlarsky, & Willcocks, 2015). The Handbook of Global Outsourcing and Offshoring, 2015, London, Palgrave Macmilan, page 9

Typically, large companies have a negotiation advantage with telecom supplier because they have scale in their purchase therefore pushing down the negotiation price. Furthermore, the cost of telecommunications has seen a drop of about 82% because the penetration rate of telecoms has peaked, making the prices drop immensely, especially in developing countries, which Central and Eastern Europe are part of. The developed countries have seen an almost flat variation throughout the same period of 2008-2012, suggesting that premium services in these markets account for stability of prices. Despite this fact, the trend is for worldwide price of telecommunications, especially, fixed broadband to become increasingly lower with operators, trying to offer new packages of premium services to stabilize revenue. (ITU, 2016)

Regarding fixed phone costs, the world is seeing a decline in fixed phone subscriptions which is quite pronounced in the European union and the US, with nearly 42% and 40% respectively and minus 20% subscription base worldwide, since 2006 (WorldBank, 2016). Fixed telephone lines are still important especially for BPO outsourced tasks such as Call Centres and for ITO's Help Desks, but there's evidence that it is a technology on decline and that most possibly web-based alternatives will overtake the use of fixed phone lines, which leads the model to only consider this sub-factor at 5%.

As this thesis aims at different kinds of offshoring and focus more on the possibility of nearshoring to IT and business process outsourcing, the costs of electricity have a decreased importance. Accordingly, these kinds of nearshored activities, rely more on the transformation of data, customer service, marketing, support activities and back office tasks, which unlike manufacturing, don't require energy-intensive machines or processes. It is for this reason that considering the type of nearshoring (ITO and BPO), the model only attributes 5% importance to this sub-factor.

Infrastructure

The first and most important of all is the Networked Readiness Index, which is translated into how well can a country leverage its Information and Communications Technology to boost its competitiveness and well-being (World Economic Forum, 2016). This sub-factor has a whole world of categories on itself and is elaborated by the WEF in collaboration with INSEAD. The importance of this index is its capacity to single-handedly evaluate a country on several categories regarding ICT

issues, from legal standpoints to business ones, not forgetting of course the use and leverage on ICT infrastructure already done by states. Being composed by ten pillars, one should closely analyse the 3rd pillar which translates into Infrastructure and Digital Content, which captures the yearly development of the ICT infrastructure as well as the availability of digital content. All these matters are important to look for when assessing the location strategy for nearshoring or offshoring because whether in BPO or ITO almost all tasks and work need a decent infrastructure which allows for secure and fast transfer of data. Furthermore, according to (Egger & Falkinger, 2003), public expenditure on developing infrastructure whether BPO, ITO or manufacturing related, brings down fixed-costs for companies moving to that same country, therefore bolstering the attractiveness of the latter. For its high usability and thoroughness, the sub-factor Networked Readiness Index is worth 30% of the factor Infrastructure.

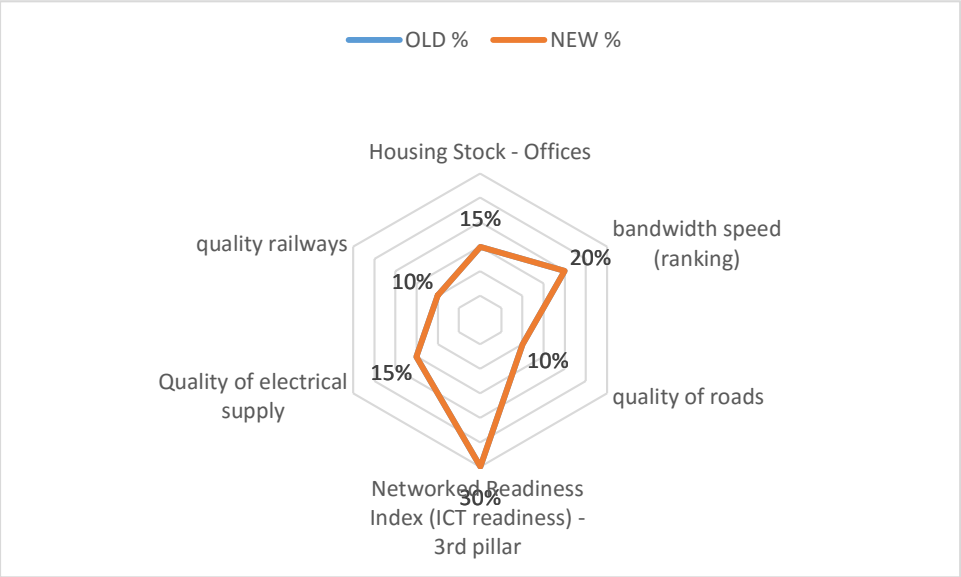

Figure 5 - Infrastructure Radar

Second to the NRI is the bandwidth speed of a given country. Since nowadays all business relies on the transfer of data and since the business world is increasingly becoming faster-paced, it's highly important for a country to have a considerable bandwidth speed or internet speed, more commonly referred to. This kind of ICT, is the bedrock platform for all information and where it flows, and by having greater bandwidth speed, countries can allow its companies to achieve better organizational performance since it gives the ability for a closer relationship between chain members. Additionally, an improvement in ICT technologies, like an improvement in bandwidth speed, can have two clear

perceived benefits: efficiency and effectiveness improvements. The former is characterized by better data flow which translates into better material management between the firms and reduces the costs of coordination and allows for improvements in EDI (Electronic Data Interchange). The latter benefit is regarded as effectiveness improvements, such as the possibility to restructure or re-engineer an entire supply chain (Alderete A., 2013). For these reasons and perceived benefits, it is considered that the bandwidth speed is worth 20% of the factor. Regarding the Quality of physical infrastructure like roads and railways, these sub-factors are not deeply taken into consideration due to the reason that one is analysing a scenario of ITO and BPO where the use of infrastructure is mainly the technical one, like telecommunication infrastructure. Still these sub-factor may be revealing of a country's development and taken into consideration when choosing a location. For these reasons each of which is only worth 10% of the factor. Moreover, and one the same line of thought given that one's analysing the country attractiveness for ITO and BPO services, taking deeply into consideration the Quality of Electrical supply would be misleading. Still, failure in electrical supply may delay projects and be time-consuming. for these reasons it's considered that the sub-factor is worth 15%. Lastly, the Housing Stock sub-factor is an equally important one as the latter given that it's highly important that a country can provide its companies with availability of office space and developed business parks with suitable infrastructure. But still, nowadays, the easily installed business infrastructure, even in city-centred offices, takes away the importance of availability of dedicated office space in cities. For these reasons, it's considered the sub-factor is worth 15%.

Environment

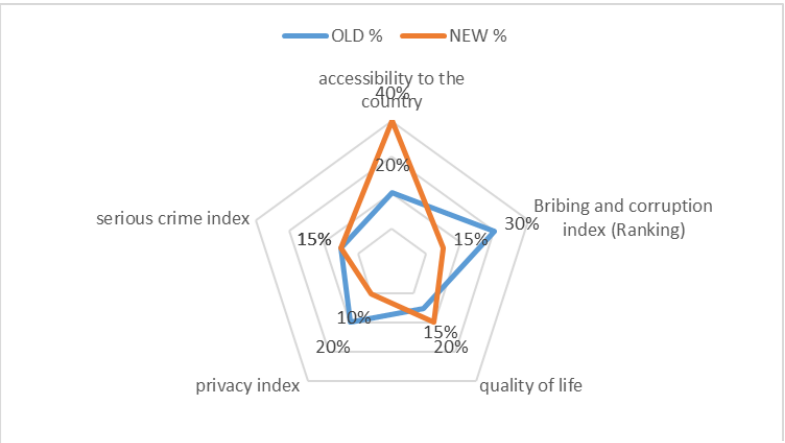

Figure 6 - Environment Radar

Of these five, the top listed sub-factor with 30% importance is the Bribing and Corruption index. Despite conducting its business at arm's length or even fully outsourcing part of its business to a third party in a different country, a company is still subject to facing penalties and fines for involvement in dubious activities such as bribing (Burbidge-King, 2016). The economic costs of corruption are still not taken duly serious. The IMF research has shown that investment in corrupt countries is almost 5% less than in countries that are relatively corruption-free and the World Economic Forum estimates that corruption increases the cost of doing business by up to 10% on average (OECD, 2016). This is why it is highly important that countries start making legislation to tighten the space for corrupt practices as it has been done in the UK since 2011 with the UK Bribery Act and the US Foreign Corrupt Practices Act. This is a serious matter and a fact that corroborates that, is that half of the G20 have severe problems regarding corruption (Transparency, 2016). Moreover, it is proposed in a study that strong rule of law enhances the value perception of outsourcing, whereas, a lack of strong rule of law is negatively related to outsourcing inflow in a destination country (Kshetri, 2007). Consequently, this is why, along the former reasons, this indicator has such importance in the TAVAAS framework and contributes so heavily to a country's attractiveness as a nearshore destination.

Secondly important is the accessibility to the country. This is defined by the number of readily available infrastructures which allow entrance in the country, by time difference, by travel time and its geo-strategic position. This is an especially important criterion when assessing a country's attractiveness as an offshoring destination because it could define the level of control one can impose to its outsourced business. On the context of far offshoring, from a European country to China, for example, this would play an even greater role but because the focus of this thesis is country attractiveness as a nearshore destination, this sub-factor is just not as important. However, this sub-factor is especially important in western countries, mainly in Europe, because of the greater number of countries willing to provide ITO and BPO services and the closeness between them, which makes this sub-factor a great tool of comparison. This sub-factor is judged to account for 20% of the factor Environment in itself.

Along with this latter sub-factor there is another one which bears equally the same weight, and this one is the privacy index. This criterion certifies the level of privacy a person or a company have in a given country and the tool of comparison used is the International Privacy Index. These indexes are hard to compile due to the vagueness and broad meaning of the word privacy and this is why they are only updated from times to times but still, it is an important tool to evaluate how protected is one's business from third parties or even governmental bodies, and how well is their data protected. In outsourcing, where matters are conducted at arm's length, privacy goes hand in hand with intellectual property, but what might not be intellectual property for a company, like payroll information, might give an opportunity to a third party to seize information about a given company. Accordingly, these concerns are highly addressed since concrete threats are posed to companies or states in this case. As for 2004, 200 000 tax returns were done by Indian workers whereas, just two years before, the number was a mere 1000. In this same year 10% of all American doctor's medical transcriptions notes were done abroad. This kind of BPO outsourced services to countries where privacy laws are scattered and ill-formed may end in incidents like the one in Noida, India, where a call centre worker used credit information to buy electronic equipment from Sony (Swartz, 2004). Payrolls and other BPO outsourced activities may even end up being sold in the black market or in the dark web as the scandal of selling PayPal account information proves.

An example of how privacy laws are increasingly gaining importance is the recent 20 billion US dollar investment from India to oversee its Back office outsourcing sector (Taherzadeh, 2016). As to relate to this topic, Kshetri proposes that *"Ceteris paribus, the strictness of privacy laws in an originating country is negatively related to BP and IT outsourcing outflow from the country."* (Kshetri, 2007).

Furthermore, another important sub-factor to take into consideration when assessing a country's attractiveness its quality of life. Quality of life is depicted in the level of security, environmental health of a country, accessible infrastructures for health and leisure among other criteria. But what is important to highlight is that this sub-factor is vital to retain and motivate current and future working resources. Also it is very important that a country exhibits a good quality of life so that foreign

companies can bring their own assets and guarantee them a stable life when implementing new operations in a given country (Galamba, 2016). Moreover, according to the oval model from Carmel, which tries to explain the success of those nations that have already made achievements in exporting software by looking at eight different realms of analysis (Carmel, 2003), quality of life is one of the key aspects for a country to steadily receive a good amount of software outsourcing inflow. Finally, assuring quality of life not only helps in talent retention and holding back brain drainage to emigration but also ensures the location the right way to attract foreign clients and welcome them (Carmel & Tjia, 2005). Lastly, Regarding the Serious Crime Index, it is considered to be only worth 15% of the factor, given that the scope of the analysis focus mainly on the Western Cases of nearshoring and offshoring, which brings down the importance of this sub-factor, given the increased security measures these countries take. Still it may be a revealing sign of a country's development and companies may want to think twice before risking their resources in an insecure environment.

Skills

When other studies were made about the importance of the different weighs in country attractiveness models, the factor which always came on top only rivalled by "Costs" is the factor "Skills". This factor is essential for the attractiveness of an outsourcing destination and even more for a nearshore one. Where in *farshoring*, one can overlook this matter to meet the cost reduction targets proposed, in *nearshoring*, due to the closeness of a country's rivals and rather homogeneous country characteristics, the factor "Skills" becomes the single most important measure of attractiveness.

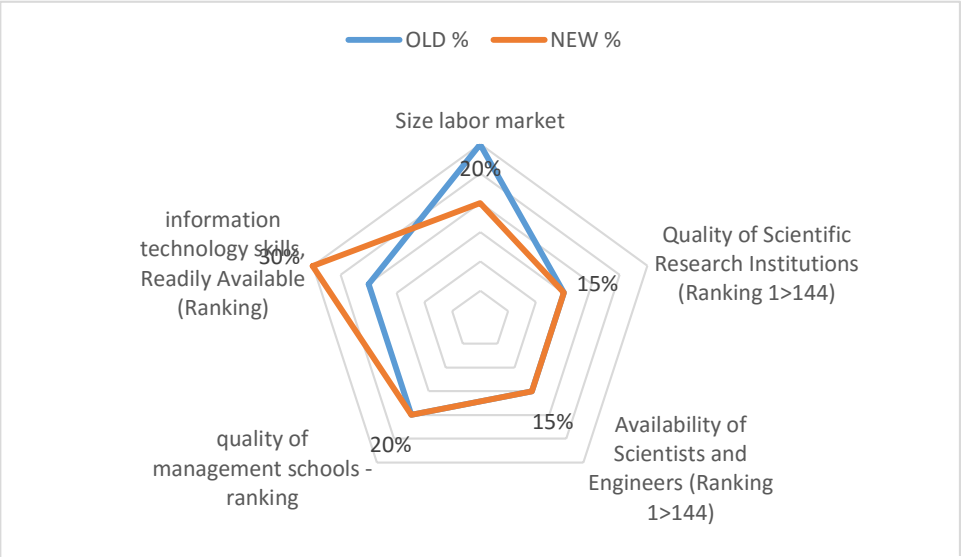

Figure 7 - Skills Radar

When assessing the new hypothesized TAVAAS, the first and most important sub-factor of Skills, is the “Size of labour market”. Accounting for 30% of the factor, this sub-factor reflects the dimension of the talent pool that a country has to offer and therefore how scalable is the workforce and consequently and big of a project can it handle. Everis and Accenture Portugal consider this factor, vital to the attraction of new projects and to create new jobs and make note that countries may be missing on new opportunities merely due to the size of their workforce (Accenture, 2016). Everis Chairman, highlights that the mother company of Everis, NTT Data, has business volume similar to the GDP of Portugal, therefore considering that nearshore destinations like Portugal or other not-so-scalable European countries should scout the market for niche opportunities with other European and South or North American companies to secure niche markets where which their scale can deliver (Vasconcelos B., 2016). Moreover, having a bigger and more diversified talent pool enables a country to remain competitive at price levels because it will avoid talent shortages and will expand and add a new range of business, linguistic and technical knowledge. This ultimately will ease the burden of companies who move their processing centres to a given country, since they’ll not enter a fierce competition with other processing centres for talent acquisition (which will increase wages and revert the competitive logic mentioned before). Due to the scale factor, wider availability to handle bigger projects and ability to maintain competitive wages it is considered that the talent pool of a country is the most important sub-factor of the factor “Skills”.

A secondly important sub-factor and that directly correlates with increased BPO capabilities is the Quality of Management Schools. Weighting 20% of the factor Skills, this sub-factor is truly important because it will shape and increase a country’s future in management and people skills. An increased capability in management terms fosters a greater amount of advanced and more skill-based tasks, a country is likely to receive. In low-cost countries like India and Philippines, for example, a survey has demonstrated that 70% of the 1200 inquired business leaders were likely to increase the role of advanced skills done offshore (Chandol, Kekre, & Khetarpal, 2016).

The importance of organizational capital in human resources in deeply linked with the quality of management schools in a given country. This kind of capital is linked with the skill of managers to execute and implement, in cooperation with staff who operate effectively in teams within the organization. Organizational capital is partly learnt, partly acquired through experience. The learnt part is taught in business schools and most commonly called “business skills” and the boom in business schools around the world is linked with a superior performance of staff where those business schools are flourishing and showing good academic results. (Carmel & Tjia, 2005)

Skipping to another sub-factor that is also worth 20% of the factor “skills”, one should analyse the Information Technology skills readily available in a given country. Also known as technical capital, workers who possess these skills often come from IT-specialized backgrounds but not solely, since many come from other scientifically significant backgrounds such as Mathematics, Physics or Engineering. Interestingly enough, the countries which have the highest number for graduates with computing and statistics background are at the top of outsourcing inflow (Germany, UK and Poland as examples) (OECD, 2016) and (Oshri, Kotlarsky, & Willcocks, 2015). As breakthroughs in technology are advancing, with great emphasis in developed countries, the need for large teams of unskilled and inexperienced staff especially in the ITO sector is vastly diminished and smaller countries which used to perform such jobs are turning the pointer towards an investment in IT skills to be a valid destination of outsourced services (Raconteur, 2016). Countries from Eastern Europe for example, are reaping the benefits of such investment with the likes of Bulgaria, Romania and Hungary being in the top ten of outsourcing destinations in Europe Additionally, one should analyse the sub-factor Availability of Scientists and Engineers, which is given the weight of 15%. This lesser weight is justified by the fact that the majority of ITO and BPO skills do not require professionals to be specifically Scientists or Engineers, and in turn, would require much more people with high knowledge of data treatment and management capabilities. Scientists and Engineers would play a more important role if the main scope of the analysis was R&D or scientific investigation, but still these are important jobs available for ITO and BPO functions given their focus on analytics and rigour. Lastly, the Quality of Scientific Research Institutions bear the same weight as the latter sub-

factor and the logic for that follow almost the same path. These institutions are a great indicator of a country's development on scientific areas but that doesn't mean the country would be an attractive destination for nearshoring of ITO and BPO.

Analysis of the Survey Results

For the validation of the aforementioned hypothesis, there was conducted a study by APDC in collaboration with Portugal Outsourcing, which inquired companies about what they thought it were the three most valuable factors that made Portugal a good option when it came to nearshoring. An analysis was done based on the frequency that reasons matched the sub-factors and based on that a percentage was elaborated. Although not being a closed survey which would determine exactly which were the thoughts of the companies for the importance of each sub-factor, this method is still enlightening enough to withdraw some valid conclusions to a final proposal of the TAVAAS model.

As shown in Figure 4 in the appendix, the results show a big difference in mainly three factors and respective sub-factors, being these the Market Potential, Risk Profile and Environment. To start, the first one, is now characterized by an even bigger importance in what concerns Language Skills, with an increase in nearly 30pp, followed by an increase in 14pp on the Global Opportunity index. These discrepancy is justified with a zero importance given to the sub-factor GDP and a mere 2% given to GDP growth. Possible justifications for these figures might be the fact that companies overlook the current state of the country, economically, to focus their efforts on finding the right resources, independent of how well their countries' are performing economically. (maybe more about language skills)

The second sub-factor where more differences were felt, was in Risk Profile. The main differences were found in the sub-factors Cost Inflation where it came down 34pp, a staggering increase in the personal security index from 15% to 47%, a mild increase in the Impact of Terrorism of 15pp and finally a 13pp decrease in the Intellectual Property protection sub-factor. Possible explanations from these figures might arise from the increasing concern from companies on how well protected and established their resources are. Also, depending on the implementation phase of the project, where resources from the origin countries are needed to move to the outsourced country, this aspect may

become even more relevant. Also, companies state that stable and calm countries provide more conditions to conduct a respectively stable business. The drastic decrease in the Cost Inflation may come from the fact that the study was done in Portugal, which is a member of the EU, which by consequence is required to maintain inflation at a steady level and its exchange rate is not so volatile due to the centralization of the monetary policy in EU. Given these aspects, companies may overlook this sub-factor given that it is guaranteed at jump start. As for the Intellectual Property Protection, a similar reasoning may follow given to the intricacies of the study, companies in Europe who do nearshoring, have as granted that their intellectual property is protected at European level by a central law. Still these results may not indicate the full reality of the business panorama and the entire reasons for country attractiveness for outsourcing.

Finally, where results also show bigger gaps are in the factor Environment and the biggest of which is the Accessibility to the country were there was an increase of 28pp, a difference which was shown inversely in the Bribing and Corruption index. Also the Privacy index was down by 15pp, with the Quality of Life and Serious Crime Index registering an increase of 8pp. Possible explanations may be withdrawn from the fact that, when nearshoring, companies want a country that is easily accessed in case of an emergency or if a follow-up on the project or operations is needed. Also, the Bribing and Privacy indexes, which may indicate less safe conditions of work, are disregarded probably on the same basis of a guaranteed EU business environment, where there is little space for these practices. Lastly, the other two sub-factors, which became more important, reveal the more extrinsic side of business, which is not always looked at when making a decision. Guaranteeing a good quality of life and a low crime environment to their employees are factors (sub-factors in this case) that show the increasing concern of companies with their people, which they hope is translated into more productivity.

The other three factors that didn't show that much of a difference, still point to evidence that some sub-factors from within suffered some change. From the factor Costs, the most drastic change belongs to corporate taxes with a decrease of 17pp and to labour cost of unskilled employees which rose about 11pp. Moreover, costs of communication also rose with Costs of Fixed Phone being the highest

increase (about 8pp). For what concerns corporate taxes, a possible explanation may be that companies don't pay that much attention to corporate taxes because they are profit-dependent, and furthermore, they may be covered by double taxation treaties which enable them not to pay taxes on duplicate. Also, in the Portuguese case, this sub-factor may be overlooked due to agreements that several foreign companies are able to get with national agencies, which enable them to avoid taxes on the first years of activity. As for the rise of the other two sub-factors, they may be consequence of the way the answers were given to the qualitative survey and when mentioning the cost of labour as a reason, they do not specify if it's skilled or unskilled labour. This same possibility may be behind the reason in the importance of the sub-factor of skilled labour, which came down 9pp.

When analysing the factor Infrastructures, there seems to be no relevant changes to the proposed figures in the hypothesis. Still, this corroborates the primordial importance of the Technological Infrastructure of a country, evaluated by the Networked Readiness Index and backed-up by Bandwidth Speed which prove that technological infrastructure is the first thing in consideration of this factor.

Lastly, aside from the Size of the Labour Market, which dropped 22pp, and the increase in 13pp of the ICT skills readily available, there are no considerable changes in the factor Skills. These fluctuations may be due to the specificity of projects of BPO and ITO that are nearshored to Portugal, where the survey was done, do not require a great scale and, like that, the Size of Labour Market loses importance. Inversely, companies are increasingly looking in the market for talented workforce who can readily fit into their ranks and be able to work with the latest technologies. This increase may justify why the decrease in the sub-factor Skilled Employees is not-so-valid.

Matching and Adjustment

According to the results gathered, an adjustment to the model is needed and hereby are presented the justifications given to that same adjustment.

Regarding Market Potential, GDP growth rate, GDP, Language skills and Global Opportunity Index have changed their weights to 15%, 10%, 50% and 25%, respectively. This change is justified by the

clear importance given by companies to Language skills and the openness of the economy and its workers and the lesser concern on how well the economy of a country has been performing.

To what concerns the Risk Profile, the sub-factors' Cost Inflation, Personal Security Index and Intellectual Property Protection weights have been changed to the following: 30%, 35% and 15%. This changed is supported by the increased importance given by the validation study on what concerns the protection of their resources in a foreign country but also reinforces the importance of a steady and stable cost inflation, which can make projects and operations costlier overnight.

As to the factor Costs, the following have changed: Corporate Taxes, Cost of Fixed Broadband and Cost of Fixed Phone, with the respective weights being: 10%, 15% and 10%. These new weights state the importance of a cheap, yet functional communication infrastructure and a lesser importance given to the Corporate taxes as companies may have cut deal with national agencies of be protected by double taxation treaties.

As regards to Infrastructure, nothing has changed since the validation study backed up the current state and previsions of the model. As to Environment, the Accessibility to the country, Bribing and Corruption Index, Quality of Life and Privacy Index have received the following new weights: 40%, 15%, 20% and 10%. These can be explained by increased importance given to how accessible the country is, given that that enables a better control over operations in foreign countries and enhances the concern on the quality of life their resources are able to get in order to settle them in foreign operations.

Lastly, the in the Skills factor, there has been only a change of importance given to Size of labour Market and ICT skills readily available with the former having the new weight of 20% and the latter 30%. Justifications for these changes are brought by intricacy of the study, performed in a single country, and for need of skills more than the scale companies may desire to bring to their offices.

New Portuguese TAVAAS score

Regarding the formulation of the new model with new weights on the sub-factors, it was performed a new country score comparison. The countries selected were the same ones as in the thesis "Portugal as a near shore destination for Information Technology and Business Processes Outsourcing. Factors influencing the location assessment." by Michela Lubrano. The new scores are as follows:

Figure 8 - New Portuguese TAVAAS score

Factors	pt	cz	pl	sp	WEIGHTS
Market Potential	0.165	0.295	0.235	0.29	0.1
Risk Profile	0.15	0.375	0.3525	0.54	0.15
Costs	0.44	0.36	0.38	0.73	0.2
Infrastructure	0.456	0.342	0.665	0.437	0.19
Environment	0.217	0.399	0.441	0.329	0.14
Skills	0.396	0.561	0.682	0.561	0.22
FINAL SCORE	1.824	2.332	2.7555	2.887	1
	9.9%	-5.6%	0.6%	9.4%	

In this exercise, Portugal stills holds the front place for country attractiveness, but has increase its score from 1.66 to 1.824, which corresponds to a 9.9% increase. The massive weight change in Language skills was decisive for Portugal to jump to the first place in the factor Market Potential and maintain the leadership in the overall factors. This tendency follows in every other country except Czech Republic which saw its result drop by 5.6% because of a greater score in the Networked Readiness Index, a sub-factor which is new and of increased importance. Lastly, Spain lost its third place to Poland due to the increased importance of telecommunication and qualified labour costs as well as the rental space costs.

Conclusion

As the results from the study used for the validation of the hypothesis in this thesis have shown, there have been quite a few deviations from the hypothesized model mainly in three factors (Market Potential, Risk Profile and Environment) with variations in sub-factors as high as 32pp as it was the case with Personal Security Index. Still, these variations translate to the paper the corporate interests behind the country selection process and what these entities truly value when assessing a move abroad. By the nature of the study, which limited the number of reasons to select a country, to a number of three, it's believed that companies still value other aspects, which received lower scores, or forget to include them in their mentions given that they are in a business scenario, like the EU, that pre-emptively take measures to counter country inflation, for example, making that sub-factor lower in importance but to which companies should still look at. One should also not forget to analyse the

fact that this methodology is just a support document to help companies to select their destination when outsourcing services and that by the fact that every company has its own needs and requirements, one should not forget that a first assessment on these needs should be done in order to match them with what a country then as to offer.

In a nutshell, this methodology is now a more valuable tool to make a comparison of destinations for BPO and ITO services and enables the user to rate the importance of different sub-factors and to withdraw conclusions from it, depending on the destination. It also makes it possible for the user to make regression analysis, if a considerable set of samples is given, on which sub-factors influence one another.

Limitations and Guidelines for Future Research

The deepening of the TAVAAS methodology into the sub-factor category has come with its obstacles. The main ones encountered were the lack of collaboration from companies to perform a closed survey in which specific weights would be given to each sub-factor according to their understanding of the Outsourcing Panorama. Moreover, the study selected to overcome this obstacle tends to be somehow biased in the sense that it only finds reasons for country attractiveness for only one country, which defeats the purpose of doing a global study with a methodology tested and proved at least for the Western business scenario. To this adds the lack of quantitative tools for and the lack of sample to perform a regression analysis on the importance some sub-factors had on each other. For further studies, it would be a valuable addition to perform the aforementioned regression analysis and to perform a validation study with samples across Europe and the USA, since this would give more depth to the study. It would also be worthwhile to revisit the methodology to better apply it specifically to the ITO or BPO business panorama since this thesis doesn't aim to cover this specific analysis.

Lastly, the needs and specificities of each companies may wildly vary, making this methodology somehow too strict. Still, this methodology is a support document to analytically back up a decision to move or not some operations to another country.

Annexes

∑n	Sub-factor		N	Frequency	Percentage	Old Percentage	Difference
44	Market Potential	gdp growth rate	1	0.022727273		0.3	-0.277272727
		gdp	0	0		0.15	-0.15
		language skills	28	0.636363636		0.35	0.286363636
		Global Opportunity Index	15	0.340909091		0.2	0.140909091
17	Risk Profile	cost inflation	1	0.058823529		0.4	-0.341176471
		personal security index	8	0.470588235		0.15	0.320588235
		impact of terrorism	6	0.352941176		0.2	0.152941176
		intelectual property protection (ranking 1>144 countries)	2	0.117647059		0.25	-0.132352941
111	Costs	average rental office_1st city	14	0.126126126		0.15	-0.023873874
		average rental office_2nd city	14	0.126126126		0.05	0.076126126
		average wage skilled employee_PM	23	0.207207207		0.3	-0.092792793
		average wage skilled employee_Dev	23	0.207207207		0.1	0.107207207
		corporate taxes	3	0.027027027		0.2	-0.172972973
		electricity costs for industrual clients	4	0.036036036		0.05	-0.013963964
		cost of telco_fixed BB	15	0.135135135		0.1	0.035135135
		cost of telco_fixed phone	15	0.135135135		0.05	0.085135135
69	Infrastructure	Housing Stock - Offices	8	0.115942029		0.15	-0.034057971
		bandwidth speed (ranking)	18	0.260869565		0.2	0.060869565
		quality of roads	9	0.130434783		0.1	0.030434783
		Networked Readiness Index (ICT readiness) - 3rd pillar	19	0.275362319		0.3	-0.024637681
		Quality of electrical supply	7	0.101449275		0.15	-0.048550725
		quality railways	8	0.115942029		0.1	0.015942029
43	Environment	accessibility to the country	20	0.465116279		0.2	0.265116279
		Bribing and corruption index (Ranking)	1	0.023255814		0.3	-0.276744186
		quality of life	10	0.23255814		0.15	0.08255814
		privacy index	2	0.046511628		0.2	-0.153488372
		serious crime index	10	0.23255814		0.15	0.08255814
103	Skills	Size labor market	9	0.087378641		0.3	-0.212621359
		Quality of Scientific Research Institutions (Ranking 1>144)	17	0.165048544		0.15	0.015048544
		Availability of Scientists and Engineers (Ranking 1>144)	16	0.155339806		0.15	0.005339806
		quality of management schools - ranking	28	0.27184466		0.2	0.07184466
		information technology skills, Readily Available (Ranking)	33	0.32038835		0.2	0.12038835

Figure 9 – Survey Results

		N Frequency	Percentage	Old Percentage	Difference	ACCENTU	ACTION -	ALCATEL	ALTRAN	ARMANTI	ATOS	BNP PARI	CAPGEMI	CELFOCUS	CGI PT	CISCO	COLLAB	IBM	CONCENT	CORIANT	DELOITTE	EVERIS	FUJITSU	GEOBAN	GFI	GLINTT	HP	INDRA	INFINEON	LIVINGBR	MERCER	MICROSO	NOVABAS	PRIME IT	RANDSTA	REDITUS	SIBS PROC	SIEMENS	SILVEROA	SOLVAY	TECNOCO	TELEPERF	TSED	UNIT4	XEROX
Market Potential	gdp growth rate	1	2%	30%	-28%																												1												
44	gdp	0	0%	15%	-15%																																								
	language skills	28	64%	35%	29%	1		1	1	1	1		1			1		1	1	1	1		1	1	1	1		1	1	1	1	1	1	1			1	1		1	1	1	1	1	
	Global Opportunity Index	15	34%	20%	14%	1		1	1	1			1	1			1	1					1	1	1	1			1					1	1					1	1		1		
Risk Profile	cost inflation	1	6%	40%	-0.34										1																													
17	personal security index	8	47%	15%	32%						1				1		1					1					1			1		1		1										
	impact of terrorism	6	35%	20%	15%						1						1										1			1		1		1										
	intelectual property protection (ranking 1>144 countries)	2	12%	25%	-13%										1																			1										
Costs	average rental office_1st city	14	13%	15%	-2%		1					1	1		1		1				1	1		1	1	1					1					1		1					1
111	average rental office_2nd city	14	13%	5%	8%		1					1	1		1		1				1	1		1	1	1					1					1		1					1
	average wage skilled employee_PM	23	21%	30%	-9%		1				1	1	1		1		1				1	1		1	1	1	1	1		1	1		1		1		1				1	1		1
	average wage skilled employee_Dev	23	21%	10%	11%		1				1	1	1		1		1				1	1		1	1	1	1	1		1	1		1		1		1				1	1		1
	corporate taxes	3	3%	20%	-17%																			1	1											1									
	electricity costs for industrual clients	4	4%	5%	-1%																			1	1											1		1						
	cost of telco_fixed BB	15	14%	10%	4%		1				1	1	1		1		1				1	1		1	1	1					1					1		1					1
	cost of telco_fixed phone	15	14%	5%	9%		1				1	1	1		1		1				1	1		1	1	1					1					1		1					1
Infrastructure	Housing Stock - Offices	8	12%	15%	-3%	1						1			1		1		1									1	1							1								
69	bandwidth speed (ranking)	18	26%	20%	6%	1	1					1		1	1	1	1		1	1	1	1	1	1				1	1			1			1	1								
	quality of roads	9	13%	10%	3%	1						1			1		1		1									1	1						1			1						
	Networked Readiness Index (ICT readiness) - 3rd pillar	19	28%	30%	-2%	1	1					1		1	1	1	1		1	1	1	1	1	1				1	1			1			1	1			1					
	Quality of electrical supply	7	10%	15%	-5%	1						1			1		1		1									1	1															
	quality railways	8	12%	10%	2%	1						1			1		1		1									1	1									1						
Environment	accessibility to the country	20	47%	20%	27%	1			1				1		1		1	1	1	1		1	1	1			1		1	1					1	1		1	1			1		1	
43	Bribing and corruption index (Ranking)	1	2%	30%	-28%												1																		1									
	quality of life	10	23%	15%	8%						1						1					1					1			1		1		1	1						1		1	
	privacy index	2	5%	20%	-15%																										1				1								
	serious crime index	10	23%	15%	8%						1				1		1					1					1			1		1		1	1							1	
Skills	Size labor market	9	9%	30%	-21%	1				1				1							1			1			1				1			1	1		1					1		
103	Quality of Scientific Research Institutions (Ranking 1>144)	17	17%	15%	2%		1		1			1	1				1	1		1		1		1			1				1		1	1	1		1					1	
	Availability of Scientists and Engineers (Ranking 1>144)	16	16%	15%	1%	1				1				1						1		1					1				1	1	1	1	1	1	1	1				1	
	quality of management schools - ranking	28	27%	20%	7%		1		1	1	1	1	1	1		1	1	1	1	1	1	1		1	1	1		1	1	1	1	1	1	1	1	1	1	1				1	
	information technology skills, Readily Available (Ranking)	33	32%	20%	12%	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1		1	1	1		1	1	1	1	1	1	1	1	1	1	1		1		1	1	1

Figure 10 – Survey Results by Company size

N = Nr of companies	
3	1 - 50
2	51 - 100
7	101 - 200
15	201 - 500
9	501 - 1000
4	> 1000

Figure 11 – Dimension of the sample

Weight	FACTORS	SUB-FACTORS			% Adjustment
0.1	Market Potential	gdp growth rate		0.3	0.15
		gdp		0.15	0.1
		language skills		0.35	0.5
		Global Opportunity Index		0.2	0.25
			Total	1	1
0.15	Risk Profile	cost inflation	0.06	0.4	0.3
		personal security index	0.0225	0.15	0.35
		impact of terrorism	0.03	0.2	0.2
		intelectual property protection (ranking 1>144 countries)	0.0375	0.25	0.15
			Total	1	1
0.2	Costs	average rental office_1st city	0.03	0.15	0.15
		average rental office_2nd city	0.01	0.05	0.05
		average wage skilled employee_PM	0.06	0.3	0.3
		average wage skilled employee_Dev	0.02	0.1	0.1
		corporate taxes	0.04	0.2	0.1
		electricity costs for industrual clients	0.01	0.05	0.05
		cost of telco_fixed BB	0.02	0.1	0.15
		cost of telco_fixed phone	0.01	0.05	0.1
			Total	1	1
0.19	Infrastructure	Housing Stock - Offices	0.0285	0.15	0.15
		bandwidth speed (ranking)	0.038	0.2	0.2
		quality of roads	0.019	0.1	0.1
		Networked Readiness Index (ICT readiness) - 3rd pillar	0.057	0.3	0.3
		Quality of electrical supply	0.0285	0.15	0.15
		quality railways	0.019	0.1	0.1
			Total	1	1
0.14	Environment	accessibility to the country	0.028	0.2	0.4
		Bribing and corruption index (Ranking)	0.042	0.3	0.15
		quality of life	0.021	0.15	0.2
		privacy index	0.028	0.2	0.1
		serious crime index	0.021	0.15	0.15
			Total	1	1
0.22	Skills	Size labor market	0.066	0.3	0.2
		Quality of Scientific Research Institutions (Ranking 1>144)	0.033	0.15	0.15
		Availability of Scientists and Engineers (Ranking 1>144)	0.033	0.15	0.15
		quality of management schools - ranking	0.044	0.2	0.2
		information technology skills, Readily Available (Ranking)	0.044	0.2	0.3

Figure 12 – Adjustment to the model

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